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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Holger Sedlak

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EXAMINER

PARRIES, DRU M

ART UNIT

PAPER NUMBER

2836

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/701,058	Applicant(s) SEDLAK ET AL.	
	Examiner DRU M. PARRIES	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,7 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed February 16, 2010 have been fully considered but they are not persuasive. Regarding the Applicant's arguments in the 3rd paragraph in the "Remarks" section, the Examiner doesn't agree with that interpretation being consistent with how the Applicant's invention functions, as described in the specification. In the 3rd paragraph, the Applicant states that the clock circuit "is basically placed in a hold mode" when the current consumption threshold is exceeded. However, in the specification (received November 4, 2003) on pages 7-8, no where does it say that the clock circuit is put on hold. The specification states that "the clock frequency...is reduced" when the maximum permissible current is exceeded. It states that "to reduce the clock frequency...individual pulses of the clock signal generated by the clock generator 7 are suppressed, which leads overall to a reduction in the clock frequency." No where does it explicitly state that the clock frequency is adjusted "non-incrementally", nor does the Applicant explicitly point out in the specification where this is taught. Also, one could argue that in this above explanation the clock frequency is being adjusted *incrementally* by suppressing individual clock pulses, one-by-one. Therefore, the Examiner would contend that the amended claimed subject matter isn't consistent with the original teachings in the specification, and therefore will be considered new matter.

Similar to the specification of the Applicant's invention, Durham teaches filtering out individual clock pulses when the measured current exceeds a threshold. Durham also teaches that this invention could have any number of bits, so as to reduce the clock pulse by any percentage of the total clock speed (Col. 3, lines 50-63). Durham also teaches to continually

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sample the current consumption level (after a predetermined number of clock cycles) to see if the threshold has been (or still is) exceeded (based on the “power_high signal”) and suppress another clock pulse (Col. 4, lines 18-67). The Examiner believes that the “predetermined number of clock cycles” is a matter of design choice, and when the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Therefore, one of ordinary skill in the art could predetermine that the number of clock pulses to be “1” (or “0”) and therefore continually check the current consumption threshold value (power_high signal) and continually suppress consecutive clock pulses until the current level has decreased below said threshold. Regardless, the secondary reference, Wang (5,943,203) teaches instantaneous/continuous monitoring of the current, and subsequently would lead to an instantaneous/continuous controlling of the clock frequency by the Durham reference.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the claimed subject matter regarding the adjusting of the clock frequency non-incrementally.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the non-incremental adjusting of the clock frequency must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 3, 4, 6, 7, and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claims 1, 4, and 7, as explained above, the Examiner doesn't

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believe that the Applicant's specification explicitly teaches the idea of "adjusting the clock frequency non-incrementally." The Examiner believes that the Applicant's specification teaches the same method of adjusting the clock frequency as Durham.

6. Claims 1, 3, 4, 6, 7, and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no enabling disclosure regarding how Applicants' given circuit is able to do what is now claimed, that being the non-incremental adjustment of the clock frequency.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 3, 4, 6, 7, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claims 1, 4, and 7, the Applicant uses the phrase "adjusting the clock frequency non-incrementally," and the Examiner feels that the meaning of the term "non-incrementally" is indefinite in light of the description in the specification providing no support for that term. The Examiner will base his claim interpretation of the term "non-incrementally" on the method of adjusting the clock frequency as described in the Applicant's specification. Also, as explained above, the Examiner feels that the method of adjusting the clock frequency (by suppressing individual clock pulses) described in the Applicant's specification is analogous to the method described in the Durham reference.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 3, 4, 6, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durham et al. (5,761,517) and Wang (5,943,203). Durham teaches a current measuring device (18), a controllable clock supply circuit (27, 19, 1-7, 10-13, 20) having an output with filtered clock pulses to be connected to a clock input of the circuit configuration (20, system_clock), and a clock generator (27) generating a constant maximum internal frequency. He also teaches a control device (21 & 14-17), connected to and controlling a pulse filter (1-7, 10-13, 20), which drives the filtered clock (via control signals sent via 16 and 17) based upon the measured current consumption (via sensor, 18). He also teaches the pulse filter (1-7, 10-13, 20) suppressing individual clock pulses of the clock generator (27) instantaneously and non-incrementally when a high power condition is detected (via sensor, 18), in response to the control signal at the pulse

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filter's control input (new_data of registers 10-13). It is inherent to detect if such a condition exists, to have a definable threshold value and to see if the measured value exceeds it. (Abstract; Col. 1, lines 53-59; Col. 6, lines 24-52; Fig. 1A&B) Durham fails to explicitly teach the sensor being instantaneous and how the sensor (18) determines that a high power condition exists. Wang teaches a current being measured by an instantaneous current sensor and then compared with a threshold value by a comparator to determine if an over-current state has occurred (Col. 4, lines 14-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Wang's method of determining over-current into Durham's invention since Durham doesn't teach how it is determined and Wang teaches a method known in the art. It also would have been obvious to one of ordinary skill in the art at the time of the invention to use an instantaneous current sensor and instantaneous adjustment of clock frequency in Durham's invention to allow for more accurate measurements of the current and more precise control of the clock's frequency.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on Monday -Thursday from 9:00am to 6:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jared Fureman, can be reached on 571-272-2391. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

5-11-2010

/Fritz M Fleming/

Primary Examiner, Art Unit 2836